(54) SEMICONDUCTOR MEMORY

(57) Abstract

PROBLEM TO BE SOLVED: To obtain a CAM(content addressable memory) of a high density memory cell structure.

SOLUTION: A memory cell Cn (i, j) forms a non-coincidence detection circuit to detect non-coincidence between stored data of a data holding part comprising inverters I1010 and I2020 and search data obtained from a search line SLj and a search line SLBj by N-channel transistors N01, N11, N21 and N31. On the other hand, a memory cell Cp (i, j+1) adjacent row-wise to the memory cell Cn (i, j) forms a non-coincidence detection circuit to detect noncoincidence between stored data of a data holding part comprising inverters I1212 and I2222 and a search data obtained from a search line SLj+1 and a search line SLBj+1 by a P-channel transistor P01, P11, P21 and P31.